

AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A method of generating a ~~synchronisation~~ synchronization pulse representing a symbol boundary in an OFDM signal comprising useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful symbol period, the method comprising:

deriving the difference between absolute values of samples of the OFDM signal separated by a period corresponding to the useful symbol period,

providing the difference between the absolute values to an edge detector, and

generating the ~~synchronisation~~ synchronization pulse in response to a substantial change in the difference between the absolute values.

2. **(Previously Presented)** A method as claimed in claim 1, wherein the difference between the absolute values represents integrated values obtained over a plurality of symbol periods.

3. **(Original)** A method as claimed in claim 2, wherein an infinite impulse response filter is used for producing the integrated values.

4. **(Canceled)**

5. **(Previously Presented)** A method as claimed in claim 1, wherein the edge detector comprises a filter.

6. **(Previously Presented)** A method as claimed in claim 5, wherein the filter has variable coefficients.

7. **(Previously Presented)** A method as claimed in claim 5, wherein the filter is a finite impulse response filter.

8-12. **(Canceled)**

13. **(Previously Presented)** A method of claim 2, wherein the edge detector comprises a filter.

14. **(Previously Presented)** A method of claim 13, wherein the filter has variable coefficients.

15. **(Previously Presented)** A method of claim 1, further comprising:
demodulating the OFDM signal to produce complex samples of transmitted OFDM samples;

applying a Fourier Transform to the complex samples; and
synchronizing a Fourier Transform window with OFDM symbols using the
synchronization pulse.

16. **(Previously Presented)** An apparatus for generating a synchronization
pulse for an OFDM signal, comprising:

a device for receiving the OFDM signal including useful symbol periods
separated by guard spaces, with data in each guard space corresponding to part of the
data in a respective useful symbol period;

a first circuit formed by an edge detector for determining and monitoring the
difference between absolute values of samples of the OFDM signal separated by a
period corresponding to the useful symbol period; and

a second circuit for generating the synchronization pulse in response to said first
circuit detecting a substantial change in the difference between the absolute values.